

[The zootomical labours of Delle Chiaje have now been familiar to the anatomists of Europe for nearly a quarter of a century, and they reflect great honour on him and on his country. It must therefore be gratifying to all foreigners to observe the zeal and candour of his fellow-labourers at Naples, in thus reclaiming for their distinguished countryman the merit of originality to which he is so justly entitled.—R. E. G.]

BIBLIOGRAPHICAL NOTICES.

The Climate of the South of Devon and its influence upon Health; with short accounts of Exeter, Torquay, Babbacombe, Teignmouth, Dawlish, Exmouth, Budleigh-Salterton, Sidmouth, &c. By Thomas Shafter, M.D., Physician to the Exeter Dispensary, Lying-in-Charity, &c. Pp. 258. 12mo. Churchill: London, 1842.

IN this work, although chiefly embracing statistics and medical topography, there are many interesting observations relative to natural history, and on that account it may with propriety be noticed in this Journal.

The work was written “in accordance with the suggestion of Sir James Clark, that in order to determine the true character of the climate of the south-western part of England, observations should be made in some of its principal localities.”

This has been already done in regard to Bristol and Clifton by Drs. Carrick and Symonds, and in regard to the Land’s End by Dr. Forbes. Dr. Shafter’s publication is a continuation of the subject.

The work is divided into two parts; the first treating of the climate and diseases of South Devon, and the second of its geology, natural productions, æconomical history and statistics.

The climate of Devon generally is warm and moist: this depends partly on its latitude and partly on its position as regards the ocean, nearly half of its circumference being sea-coast. The mean annual temp. of South Devon is $51^{\circ}29'$, or nearly 1° higher than that of London; one of its most striking characteristics is equability of temperature. The indications of the barometer, although not very dissimilar from those of London, yet show that the atmosphere of the district is both less dense and less liable to changes in its density than is the case in the metropolis. It is charged with moisture, and a slight depression of temperature causes deposition of dew or a fall of rain. In general language it may be stated, that from March to September the climate is dry, and during the remainder of the year humid. The mean annual fall of rain amounts very nearly to 32 inches, being about 7 inches more than fall in London. The average number of wet days (*i. e.* days in which a fall of rain, however slight, takes place) amounts to rather more than 162, while in London it amounts to 178.

Frost is not unfrequent during winter and spring, but is rarely of long continuance. Snow rarely falls in any great quantity, or re-

mains on the ground above two or three days, except on the high lands. Thunder and lightning are comparatively unfrequent, and very rarely indeed are the storms attended by serious or awful consequences. The prevailing winds are west and north-west. "During the winter season the south-west wind is often accompanied by a warm thick mist, which is peculiarly relaxing, and from its frequency not unaptly styled *Devonshire weather*."

"The chief characteristic then of the climate of this district is that of being warm, soft, mild, equably calm and free from storms: though subject to a large share of rain, yet it seldom occurs that a whole day is so unceasingly wet, as not to afford some hours, whether early or late, sufficiently fine for outdoor exercise." The general mildness of the climate is indicated by many tender and delicate exotics flourishing in the open air and not being destroyed during the winter. Among them we may notice *Erythrina laurifolia*, *Laurus Camphora*, *Camellia japonica*, *Thea viridis* and *Bohea*, *Magnolia fuscata*, *Arundo Donax*, *Agave americana*, *Passiflora brasiliensis*, *Hydrangea hortensis*, *Mimulus cardinalis*, *Myrtus communis*, *Punica Granatum*, *Citrus medica*, *Limonum*, and *aurantium*, *Olea europæa*, *Gladiolus cardinalis* and *psittacinus*, various species of *Alstræmeria*, *Callistemon salignum*, *Cheiranthus tristis*, *Salvia angustifolia*, *Ceanothus azureus*.

In illustrating the effects of climate upon the constitutions of the inhabitants, a description is given of the diseases incidental to the district. The results are deduced from the cases admitted to the Exeter Dispensary during ten years, and embrace 11,258 patients, of whom 4535 were males and 6723 females. September appears to be the healthiest month in the year. A diagram is given showing the relative number per cent. of sick persons in each month, and full tables are given illustrating the prevalence of particular diseases.

This being more immediately connected with medicine, we do not enter upon it. We would recommend to all medical men this part of the work, as well as the notice of those diseases in which the climate of Devonshire proves beneficial.

In treating of the geology of the district Dr. Shafter remarks, that the rocks which occur present a very extensive series, "ranging from the granite to the lower cretaceous group; the series however is by no means complete, many of the intervening rocks being wanting. Those which present themselves for investigation are granite, grauwacke slates, carbonaceous rocks, schists, limestone, new red sandstone (including Exeter conglomerate), greensand, granitic greenstone and trap rocks."

The indigenous Phanerogamous plants of Devonshire are said to amount to about 800, and the following is given as the number of species in the different natural Orders:—

MONOCOTYLEDONES.

Gramineæ	75	Aroideæ	8
Cyperaceæ	48	Asphodeleæ	5
Juncaceæ	16	And referable to eight other	
Orchidaceæ	13	natural Orders	13
Fluviales	10		

DICOTYLEDONES.

Compositæ	72	Chenopodææ	15
Cruciferæ	44	Boraginææ	13
Leguminosæ	39	Primulacææ and Lentibulariæ ..	13
Umbelliferæ	38	Geraniacææ and Oxalidææ ..	14
Rosacææ and Pomacææ	36	Rubriacææ	11
Labiataæ	35	Hypericinææ	9
Scrophularinæ and Oroban- cheæ	31	Sempervivææ	9
Caryophyllacææ and Lineææ ..	31	Solanææ	8
Corylacææ and Salicinææ ..	28	Euphorbiacææ	8
Ranunculacææ	20	Papaveracææ	7
Polygonææ	18	And referable to thirty-nine other Orders	113

The Grasses form nearly two-thirds of the Monocotyledons, and together with the *Compositæ* one-fourth of all the Phanerogamous plants; while *Cruciferæ*, *Leguminosæ*, *Umbelliferæ*, *Rosacææ* and *Labiataæ* form together one-fourth more. Amongst the plants peculiar to the county are noticed *Linosyris vulgaris* and *Lobelia ureus*: *Primula veris* and *Campanula rotundifolia*, of common occurrence in the adjoining counties, are but rarely met with. *Erica vagans* is chiefly restricted to the serpentine formation; *Iris fœtidissima* and the Elm are frequent in the red sand; the *Cistacææ*, *Clematis vitalba* and *Inula Conyza* on the limestone, and the Oak on the schist formation.

We trust that the example which has been set by Dr. Shafter will be followed by others, and that ultimately we may expect to have full accounts of the climate and natural productions of the various counties of England.

The tables of statistics of life and disease have been made with great care and are well worthy of attention.

Annales des Sciences Naturelles:—*Zoologie*, M. Milne Edwards. *Botanique*, MM. Ad. Brongniart et Guillemin. Paris: Fortin, Masson and Co.

Sept. 1842.—*Zoology*.—M. F. Dujardin on the Anatomy of *Gordius* and *Mermis*. The author gives the details of structure in the *Gordius aquaticus* and *Gordius tolosanus*. He confirms the account given by M. Siebold of the extraordinary structure of the animals of this genus. "They are," says M. Dujardin, "without mouth, without anus, without intestine, without veritable nerves or vessels. They have internally a fleshy muscular tube with thick walls. They have only a single aperture situated at the posterior extremity and serving doubtless the function of generation." Wanting all the organs necessary to the preservation of the individual, M. Dujardin is led to suppose that the *Gordius* may be the last stage of development of a worm, in which those organs have been atrophied in consequence of the excessive growth of the tegumentary system and of the organs destined for the continuation of the species. His genus *Mermis* differs from *Gordius* in the structure of its integument, in the presence of a minute terminal mouth, and in the mode of development of the ova.

There is something so anomalous in the structure of these worms, that we cannot admit the accounts of it to influence our generalizations until we have further observations, and above all a careful examination of animals of different ages. There is no difficulty in procuring material to work upon; will no British observer take up the subject?—M. E. Robert on the Habits of Ants.—M. Bouchard-Chantreaux on the genus *Productus*, in which he proves that the dorsal valves of these shells is not imperforate as is generally supposed, but the contrary, and attached by a ligament like its allies.—Comparative history of the Metamorphosis and Anatomy of *Cetonia aurata* and *Doreus parallelipedus*, by M. Leon Dufour: an elaborate paper beautifully illustrated.—A translation of Mr. H. Goodsir's important paper on the Development of the Eggs and Metamorphoses of *Caligus*, from the 'Edinburgh New Philosophical Journal' for July 1842.—M. Lucas on new Insects from Algeria.—M. H. Mitre on four new Shells, viz. 1. *Helix Minorciensis* (allied to *H. serpentina*) from Port Mahon; 2. *Helix Telonensis* (allied to *H. glabella*) from Toulon; 3. *Helix Nyeli* from Port Mahon, and 4. *Cardium aquilinum* from Toulon Roads. This paper wants figures.

Botany.—On the genera *Polysaccum* and *Geaster*, by MM. L. R. and C. Tulasne. Their observations on the first are at variance with those of M. Corda: figures excellent.—On the dry Gangrene of Potatoes, as observed for some years in Germany, by M. de Martius (from the 'Comptes Rendus'): a paper highly interesting to the vegetable pathologist, in which it is shown that the disease depends on the presence of a parasitic fungus.—On two plants new to the French Flora, by M. Delastre: these are *Cirsium spurium* and *Linaria prætermissa* (new; very near *L. minor*).—On the Nectaries of Plants, by M. L. Bravais.—On new Plants of Madagascar, &c., by M. Bojer.

Oct. 1842.—*Zoology*.—On the Embryo of *Syngnathus Ophidion*, Linn., by M. de Quatrefages: an elaborate memoir on the early history of these curious marsupial fish, illustrated by beautiful figures.—Researches on the composition of the Blood in some domestic animals, by MM. Andral, Gavarret and Delafond.—Researches on Digestion, by MM. Bouchardet and Sandras.—Memoir on Belemnites, by M. Alcide d'Orbigny. Commencement: an excellent paper.

Botany.—On the Distribution of the Arborescent Vegetables on the coast of Scandinavia, and on the north side of the Grimsel in Switzerland, by M. Ch. Martens. "If we except the oak and the beech, the succession of trees is the same on the Grimsel and in the North."—On the genus *Xiphophora*, and on the question whether we find in the *Fucaceæ* the two modes of propagation observed in the *Florideæ*? by Dr. Montagne.—On two genera confounded with plants of the family of *Myrsinaceæ*, by M. Alph. DeCandolle: these are, *Parastemon*, founded on the *Embelia urophylla* of Wallich, and *Kellana*, on the *Myrsine Kellan* of Hochstetter.—On the Flora of Southern Brazil, by MM. Aug. de St. Hilaire and Ch. Naudin. Third part. The plants enumerated belong to the family *Malvaceæ*.—M. Gay on the Flowers and Fruit of *Fumaria officinalis*.—M. C.

Dareste on a Monstrosity of *Delphinium Ajacis*.—M. Bunge on the genus *Braya*.—Count Jaubert and M. E. Spach, a Monograph of the genus *Cicer*: eight species enumerated.—Monograph of the genus *Halimodendron*, by the same botanists: three species described.—Third Century (5—8 decades) of new Exotic Cellular Plants, by Dr. Montagne.

Nov. 1842.—*Zoology*.—Continuation of M. d'Orbigny's memoir on the Belemnites; the author arranges them under five groups: 1st, the *Acuari*; 2nd, *Canaliculati*; 3rd, *Hastati*; 4th, *Clavati*; and 5th, *Dilatati*. These divisions not only present good zoological characters, but are respectively concentrated in different geological formations.—M. de Quatrefages on *Eleutheria dichotoma*, a new genus of Radiata allied to *Hydra*. Several highly original papers by this naturalist have lately appeared in the 'Annales,' founded on researches among the Invertebrata of the coasts of France. Most of the animals he has described may be looked for in our own seas. The new zoophyte here fully investigated is microscopic, and appears to us to be rather an ally of *Lucernaria* than of *Hydra*, very possibly the young state of some known species. The author has a tendency to see too much, and to put too great faith in the description of *Hydra* by M. Corda. His generic character, "Ocular points at the bases of the arms: no feet," is insufficient and unphilosophical.—M. S. Lovén on the Metamorphosis of an Annelide, see 'Annals Nat. Hist.' vol. xi. p. 43.—M. S. Lovén on *Myxostoma cirrhiferum*: an excellent paper on the curious parasite which infests the arms of *Comatula*.—M. Brullé on the Classification of Animals in parallel series, concluded.—M. Flourens on the Development of Bone.

Botany.—M. Montagne on Exotic *Cellulares*, continued.—Count Jaubert and M. Spach, Monograph of *Chesneya*.—Prof. Bernhardt on the characters of *Tulipaceæ* and allied families (a translation from the 'Flora' for 1840).—M. Desvauz on a new Fig and some plants furnishing Milk.—M. Goepfert on the Anatomical Structure of some *Magnoliaceæ* (from the 'Linnæa'). The researches of the author lead him to deny the analogy asserted to exist between *Tasmannia* and *Drimys* on the one hand, and the *Coniferæ* on the other. The result is important, as removing an uncertainty from the study of fossil botany.

Dec. 1842.—*Zoology*.—Observations on the structure and functions of some Zoophyta, Mollusca and Crustacea of the coasts of France, by M. H. Milne Edwards. Every communication from the pen of M. Milne Edwards is of great value. In this paper he gives some most interesting notices: 1. On the Hermaphroditism of *Pectens* (in describing the testicle there is no mention of Spermatozoa). 2. On the Organization of *Carinaria Mediterranea*: the distinction of sexes in the animals of this species is first made out. In describing the respiratory system no mention is made of the presence or absence of cilia on the branchiæ, the structure of which is compared to that of the branchiæ of the *Pleurobranchus*. [We have sought for cilia on the branchiæ of *Firola* in vain, but with better glasses and under more favourable circumstances they may perhaps be detected.] The

nervous system is well made out. 3. On the existence of a Gastrovascular apparatus in the *Calliope* of Risso, a Mollusk of the family of *Eolidae*. [The phenomenon herein described may be well seen in the *Montagua viridis*, Forb. of our own seas.] 4. On the Spermatozoophores of the *Cephalopoda*. All these notices are illustrated by beautiful figures.—On the Neutral Nitrogenous Substances occurring in Organization, by MM. Dumas and Cahours.—Remarks relating to Insects found in the neighbourhood of Paris, by M. E. Robert.—Note on the existence of the Urea in the Normal Blood, by M. Simon (from Müller's 'Archiv').

Botany.—Observations on the structure of Dotted Vessels, by Prof. Mohl (from the 'Linnæa').—Observations on the Flower and Ovary of *Oenothera suaveolens*, by Dr. Duchartre: an elaborate paper with beautiful illustrations.—Note upon the Mineral Bases occurring in the Walls of Cells, by M. Payen.—Review of some observations on the Development of the Appendages of the Vegetable Axis, by M. Ch. Naudin.—Prof. Bernhardt on the *Sesameæ* (from the 'Linnæa').—Prof. Koch on the Strawberries of Germany and France (from the 'Flora').—M. Meyer on the species of *Agrimonia* (notes on sixteen species, results of examination of nine), from the Bulletin of the Imperial Academy of Petersburg.—Fischer, Meyer and Schrenk on *Schrenkia* and *Cryptodiscus*, new genera of *Umbelliferae*: extracted from a Russian work on the plants of Longaria.

The London Journal of Botany. By Sir W. J. Hooker, K.H. &c. &c. No. 11, Nov. 1842, to No. 15, March 1843.

Contents:—Botanical Excursions in South Africa; by C. J. F. Bunbury, Esq. (Nos. 11, 13.).—On a new species of *Thuja*, and on *Podocarpus Totarra* of New Zealand; by Sir W. J. Hooker (No. 11. t. 18, 19.).—Memoir to determine the use of Pollen in Natural Classification; by Dr. Aldridge (No. 11. t. 20.).—On the Hair-collectors of *Campanula*; by W. Wilson, Esq. (No. 11. t. 20.).—Figures and descriptions of three species of *Podocarpus*; by Sir W. J. Hooker (No. 12. t. 21, 22, 23.).—Genera of Ferns; by J. Smith, A.L.S. (No. 12.).—On the Vegetation of the Feejee Islands, Tauna, New Ireland and New Guinea; by R. B. Hinds, Esq. (No. 12.).—Notes of a Botanical Tour in the Azores; by H. C. Watson, Esq. (No. 13, 15.).—Descriptions of four new genera of Plants from the Organ Mountains [*Boromania*, *Leucopholis*, in *Compositæ*; *Hockinia*, in *Gentianeæ*; *Napeanthus*, in *Cyrtandaceæ*.] (No. 13.).—Contributions towards a Flora of South America: Mr. Schomburgk's Plants from Guiana; by G. Bentham, Esq. (No. 13.).—Contributions towards a Flora of South Africa; by Dr. Meisner (No. 13, 14.).—Biographical Sketch of F. Bauer; by Dr. Lhotsky (No. 14.).—Notes on a Botanical Excursion in South Carolina; by Dr. A. Gray (No. 15.).—Notes on the Distribution of Plants in Aberdeenshire; by Dr. Dickie (No. 15.).—Some data towards the Botanical Geography of New Holland; by Dr. Lhotsky (No. 15.).—Brief descriptions of *Juniperus Bermudiana* and *Dacrydium elatum*; by Sir W. J. Hooker

(No. 15. t. 1, 2).—Botanical Information : Botanical Letters from Dr. Hortmann in Surinam (No. 11.); also from Mr. Drummond in New Holland (No. 12.), and extracts from M. Boissier's Spanish Botany (No. 12.); Notice of Le Conte Jaubert and M. Spach's *Illustrationes Plantarum Orientalium*; Mr. H. C. Watson's geographical distribution of British Plants, *third edition*; and of the Rev. J. E. Leefe's '*Salictum Britannicum Exsiccatum*' (No. 15.).—Botanical Collections noticed: China, South Africa, Caucasus, Swan River (No. 15.).

Salictum Britannicum Exsiccatum. Fasc. I.

By the Rev. J. E. Leefe, M.A.

In a former number of the 'Annals' we announced that a work under the above title was in preparation, and we have now the pleasure of informing our readers that the first fasciculus has reached us. We beg to recommend the collection most strongly; the specimens are ample, in good preservation, and very complete; and the notes appended to them are usually of considerable value. Great additional interest is given to these specimens by their having been inspected, and the nomenclature authenticated, by Mr. Borrer, whose acquaintance with willows generally, and particularly those of Britain, is probably unequalled. We hear that the great labour and amount of time which the preparation of this fasciculus has required causes Mr. Leefe to have considerable doubt of being able to continue the publication, but we earnestly hope and expect that this part will be so well received by botanists as to cause him to come to a different determination. Owing to some accident the author has not appended his name to the collection, nor named any publisher, we therefore think it right to add his name and address, viz. "Rev. J. E. Leefe, Sigston, North Allerton, Yorkshire." We believe that the collection may be procured from Messrs. Whittaker and Co., London, and recommend an early application, as very few copies were prepared. The price is extremely moderate.

PREPARING FOR PUBLICATION.

Mr. Hassall informs us that he has long been collecting materials for a History of the British Freshwater Algæ. Mr. Hassall states, that should any botanists be desirous of investigating those species which occur in their own neighbourhoods, he will have much pleasure in assisting them in the determination of those species, which plan he hopes may conduce much to the completeness of the work.

The simplest mode of transmission, he states, is to place a fragment of each species in a piece of moistened linen, and to enclose a number of such packages in an envelope of tin-foil.

Illustrations of Indian Ornithology; a series of fifty coloured Lithographic Drawings of Indian Birds, accompanied by descriptive Letterpress. By T. C. Jerdon, Assistant-Surgeon, Madras Medical Establishment.

The original drawings have been executed by *native artists*, from pencil sketches by the author, and under his immediate superintend-

ence. Several of them were exhibited at a meeting of the Literary Society of Madras some time ago, and were much admired for their beauty and accuracy.

The subjects for the present publication will be selected so as to present an agreeable variety, and most of them will be figured here for the first time.

The drawings will be lithographed both on quarto and royal octavo paper. The colouring will be finished under the author's own superintendence.

The letter-press will contain a full description of the species figured.

The work is proposed to be published by subscription. Subscribers' names received by Mr. Lizars, Engraver, Edinburgh.

We have, at the same time, received a specimen of one of the illustrations, which is well executed and carefully coloured.

PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

Feb. 22, 1842.—William Horton Lloyd, Esq., in the Chair.

The following "Monograph of *Crassatella*, a genus of Acephalous Mollusks (Family *Mactracea*)," by Mr. Lovell Reeve, was read.

The genus *Crassatella* was instituted by Lamarck for the purpose of associating certain bivalve mollusks that had been hitherto distributed amongst the *Mactræ* and the *Veneres*. Their shells exhibit an interesting peculiarity of character, differing from the former in being thick and solid, and for the most part covered with a strong brown epidermis; and from the latter in the position of the ligament. The genus, however, as introduced by Lamarck, was yet imperfect; it included five species that could not easily be distinguished from his *Amphidesmata*, and was therefore susceptible of farther division. With the view of uniting the intermediate species of these genera, a new genus was proposed by Deshayes, under the title of *Mesodesma*, and I have found great convenience in adopting it in my 'Systematic Conchology.' Thus out of eleven species described by Lamarck as *Crassatellæ*, six only can be allowed to remain. Since his time, however, several new and important species have been discovered; two have been described by Sowerby in the 'Proceedings' of this Society, one by the same author in his 'Appendix to the Tankerville Catalogue,' and I have now the pleasure of exhibiting *ten* more, which I believe to be entirely new to science.

To make this a complete monograph, I mention all the species, distinguishing the new ones by the addition of the specific characters.

1. *CRASSATELLA CASTANEA*. *Crass. testâ ovato-trigona, gibbosa, umbonibus planè erosis, epidermide castanea, quasi politâ nitente, induta; intus subfusca; latere antico rotundato; postico angulifero, abrupto.* Reeve, Conch. Icon.* *Crassatella*, pl. 1. f. 3.

* Having made accurate drawings of the *Crassatellæ*, with a view to publication at some future period, I venture to refer to a pictorial and descriptive repertory of species now in course of preparation, to be entitled "CONCHOLOGIA ICONICA."